

## DOCUMENT RESUME

ED 438 467

CE 079 792

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TITLE Participation in Adult Education in the United States: 1998-99. Statistics in Brief.  
INSTITUTION National Center for Education Statistics (ED), Washington, DC.; Westat, Inc., Rockville, MD.  
REPORT NO NCES-2000-027  
PUB DATE 2000-03-00  
NOTE 14p.  
AVAILABLE FROM ED Pubs, P.O. Box 1398, Jessup, MD 20794-1398. Tel: 877-433-7827 (Toll Free). For full text: <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2000027>.  
PUB TYPE Reports - Research (143)  
EDRS PRICE MF01/PC01 Plus Postage.  
DESCRIPTORS Adult Basic Education; \*Adult Education; \*Adult Programs; Adult Students; Apprenticeships; Definitions; \*Educational Attainment; English (Second Language); Enrichment Activities; \*Enrollment Influences; Enrollment Rate; \*Enrollment Trends; High School Equivalency Programs; Independent Study; Individual Development; Job Training; Lifelong Learning; National Surveys; \*Participation; Postsecondary Education; Student Characteristics; Trend Analysis; Work Experience Programs  
IDENTIFIERS \*National Household Education Survey

## ABSTRACT

The 1999 National Household Education Survey (NHES) was a random-digit-dialed telephone survey of the civilian, noninstitutionalized population of the 50 states and District of Columbia. Respondents were asked about their participation in the following six types of adult education (AE): (1) English as a second language; (2) adult basic education, General Educational Development preparation classes, and adult high school programs; (3) formal postsecondary programs leading to a college degree, postsecondary vocational-technical diploma, or other educational certificate related to job qualifications; (4) formal apprenticeship programs; (5) other work-related courses, including work-related courses and courses for a license or certification for a job; and (6) personal development courses (for example, sport lessons, Bible study, and courses related to health or hobbies). Data from the NHES were analyzed to identify trends in participation in AE and the extent to which participation is related to educational attainment. Overall, the analysis corroborated findings from previous studies showing that, when an overall measure of participation is used, higher levels of participation are associated with higher levels of educational attainment. However, when participation was broken out into the six component types of AE, the relationship between highest level of education and participation in AE disappeared. (Contains 18 references.) (MN)

# NATIONAL CENTER FOR EDUCATION STATISTICS

## Statistics in Brief

March 2000

### Participation in Adult Education in the United States: 1998-99

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#### Introduction

Participation in adult education has grown steadily over the past three decades, increasing to 46 percent in 1999 (Hill 1987; Kim et al. 1995; Korb, Chandler, and West 1991). The participants engaged in some form of instruction or educational activity to acquire the knowledge, information, and skills necessary to succeed in the workforce, learn basic skills, earn credentials, or otherwise enrich their lives.

To put this phenomenon in context, it is useful to compare the numbers of adult education participants in 1991 and 1999 with persons enrolled in institutions of higher education at the same points in time. In 1991, an estimated 58 million adults in the United States had participated in adult education activities, including part-time credential programs in the preceding 12 months; by 1999, this number had grown to an estimated 90 million adults. By comparison, there were an estimated 14 million persons enrolled in U.S. institutions of higher education in 1991 and projections indicate that this enrollment will increase to 15 million persons in 1999 (Gerald and Hussar 1998) (figure 1). Thus, participation in adult education was approximately four times the enrollment in higher education in 1991, and six times the higher education enrollment in 1999. Further, the increase in the number of adult education participants over this time period is about twice the number of all persons *enrolled* in higher education at either time point.

Findings from the National Household Education Survey (NHES: 1991, 1995, and 1999) show that adult education is prevalent and increasing in contemporary American society. The 46 percent participation rate for the 12-month period prior to the interview (table 1) is higher than the reported participation rates in 1991 and 1995 (32 percent and 40 percent, respectively). On the other hand, enrollment in higher education has remained relatively constant at 7.6 percent to 7.9 percent of the adult population.

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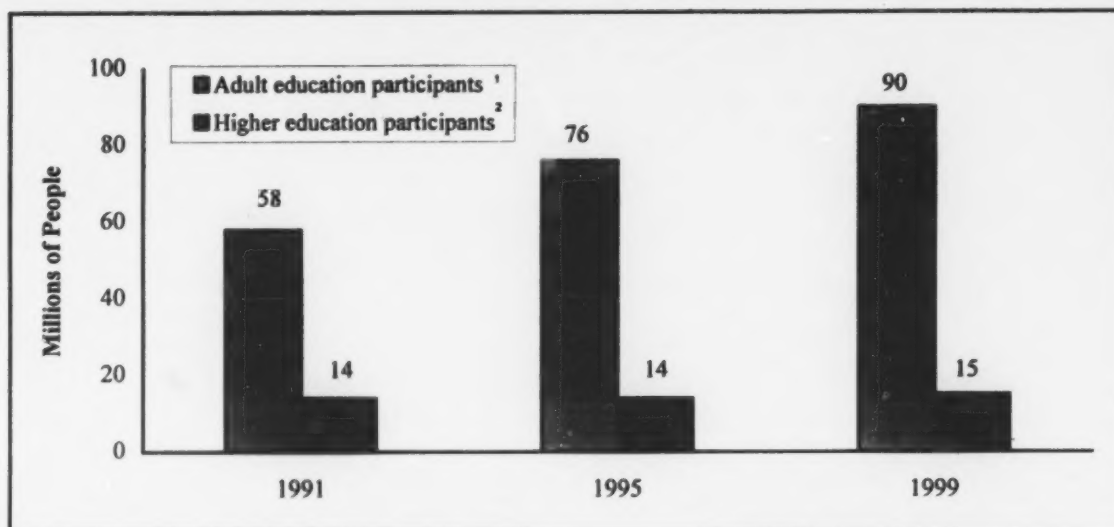
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Figure 1.—Number of participants in adult education and higher education: 1991, 1995, and 1999



<sup>1</sup>Adults who participated in a credential program on a full-time basis only, for part or all of the year, and did not participate in any other type of educational activity are not counted as participants in adult education. Adults who participated in a postsecondary credential program on a full-time basis only and also participated in another type of adult education or who participated in a postsecondary credential program on a part-time basis only or on both part-time and full-time bases are counted as participants.

<sup>2</sup>Total enrollment of higher education includes full-time and part-time students in both private and public institutions.

NOTE: Population includes civilian, noninstitutionalized adults age 16 and older, not enrolled in elementary or secondary school. Standard errors for estimates of adult education participants are as follows: 1,200,000 for 1991; 900,000 for 1995; and 1,600,000 for 1999.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, 1991, 1995, and 1999; U.S. Department of Education, National Center for Education Statistics. *Projections of Education Statistics to 2008*.

### National Household Education Survey

This Brief contains the first release of information from the Adult Education Interview of the 1999 National Household Education Survey (NHES:1999) on the educational activities of adults in the United States from early 1998 to early 1999. The Brief focuses on the growth in participation in adult education activities and the extent to which participation is related to educational attainment. This analysis corroborates findings from previous studies showing that when an overall measure of participation is used, higher levels of participation are associated with higher levels of educational attainment (Courtney 1992; Cross 1984; Darkenwald and Merriam 1982; Kim et al. 1995; Merriam and Caffarella 1991). However, when participation is broken out into six component types and these are studied individually, the relationship between highest level of education and participation in adult

education disappears (Kim et al. 1995). The relationship found in earlier studies may be driven by the fact that much of adult education is work-related, and those with higher education are the most likely to take work-related courses.

The NHES:1999 was a random-digit-dialed (RDD) telephone survey of the civilian, noninstitutionalized population of the 50 states and the District of Columbia conducted from January 3 through April 3 of 1999. For the Adult Education Interview, the population of interest was civilian, noninstitutionalized adults age 16 and older who were not enrolled in elementary or secondary school at the time of the interview.

### What is "Adult Education"?

Adult education is a diverse arena defined in a variety of ways (Cross 1984; Elias and Merriam 1984; Knowles 1980; Merriam and Caffarella

1991; Peters et al. 1991). Some regard adult education as noncompulsory or voluntary learning activities constituting a continuous learning process throughout life (Belanger and Tuijnman 1997). Others include required activities in their definition because a fairly large proportion of adults are required to participate in work-related adult education for continuing professional development purposes (Cervero 1989). Yet another way of defining adult education includes not only formal course work, but also informal educational activities. In those definitions, informal educational activities are those that do not involve an instructor. The NHES:1999 incorporates a broad approach, originally devised for use in the NHES:1995 (Kim et al. 1995), to the range of activities that may be considered adult education. These include voluntary and required educational activities that are formal, as defined by the presence of an instructor. Informal learning activities are excluded. In the NHES:1995 and 1999,<sup>1</sup> respondents were asked about six types of adult education in the following order:

- English as a Second Language (ESL)<sup>2</sup> -- classes for adults whose main language is not English to develop the English language skills necessary to pursue further education, to enter or advance in the job market, to enrich their personal and family lives, or to better adapt to American society.

- Adult basic education (ABE), General Educational Development (GED) preparation classes, and adult high school programs<sup>3</sup> -- programs or classes to help adults improve basic reading, writing, and math skills or prepare for a high school diploma or its equivalent.

- Credential programs -- formal postsecondary programs leading to a college or university degree, a postsecondary vocational or technical diploma, or other education certificates related to qualifications for jobs.

- Apprenticeship programs -- formal, on-the-job training and other related instruction leading to a journeyman status in a skilled trade or craft.

- Work-related courses -- those related to a job or career other than postsecondary credential programs or apprenticeship programs, whether or not respondents had a job when they took the courses. Some examples are courses taken at work, courses taken elsewhere that relate to a job or career, or courses for a license or certification for a job.

- Personal development courses -- various types of educational activities that have an instructor and are not included in the categories described above. Examples include courses related to health, hobbies or sport lessons, foreign languages, dance or music, and Bible study.

Respondents in the NHES:1999 reported participation based on their understanding of the activities involved, and readers should not assume that the respondents' definitions are the same as those of federal, state, or private programs in adult basic education or ESL classes. Their participation status for purposes of the study was determined by whether they were involved in one or more of these six types of adult education where there was an instructor during the 12-month period prior to the interview. Because full-time enrollment in postsecondary credential programs has not traditionally been considered to be adult education, adults who reported participation in postsecondary credential programs as full-time students only and not in any other educational activity were not counted as participants.<sup>4</sup>

### Participation in One or More Types of Adult Education

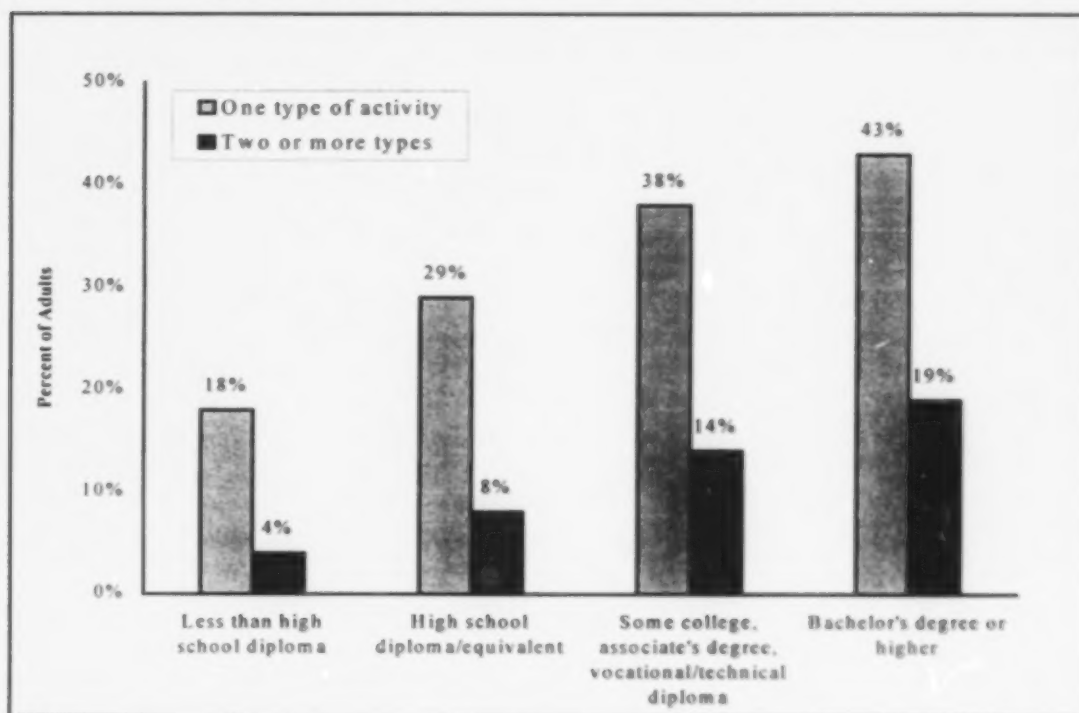
Table 1 shows the percentages of adults who participated in adult education activities, overall and by highest level of educational attainment. Of the six types of activities, adults were most likely to participate in work-related courses and personal development courses (23 percent for each). Other types of educational activities may have entrance criteria or be targeted to certain specific populations. About 9 percent of adults participated in credential programs, about 2 percent in ABE/GED classes, about 2 percent in apprenticeship programs, and about 1 percent in

ESL classes. The sum of the percentages for each type of adult education (60 percent) is greater than the overall participation rate (46 percent) because some adults participated in more than one type of adult education.<sup>3</sup>

While some adults participated in only one type of adult education activity during the 12-month

period prior to the interview, others participated in two or more types. Table 2 shows the distribution of adult education activities, classified so that each adult appears in only one category. About one adult in three (34 percent) participated in one type of adult education, and about one in eight (12 percent) participated in two or more types of activities (figure 2).

Figure 2.—Percent of adults age 16 and older participating in one type or multiple types of adult education activity, by highest level of education attained: 1999



NOTE: Population includes civilian, noninstitutionalized adults age 16 and older, not enrolled in elementary or secondary school.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, 1999.

Among participants in one type of educational activity, the most common activities were again work-related courses and personal development courses (both 13 percent). In addition, 6 percent of adults participated in both of these types of activities and none of the other types. Participation in these two activities, separately and in combination with each other only, accounts for 32 percent of adults, about two-thirds of the 46 percent overall participation rate. About 4 percent of adults participated in credential programs only, and about 2 percent or

less participated in each of the other individual activities or combinations of activities.

#### Relationship Between Participation in Adult Education and Highest Level of Education

As shown in table 1, the overall participation rate increases with each level of education. The overall participation rate of adults with less than a high school diploma was 22 percent as compared to 37 percent for those with a high school diploma, 52 percent for those with some

college, an associate's degree, or a vocational/technical diploma, and 62 percent for those with a bachelor's degree or higher.

Table 1 also shows that different patterns of participation are observed when examining the relationship between educational attainment and participation in the six types of adult education separately. Participation rates in work-related and personal development courses, which dominate the activities reported, increase across levels of education from very low rates among those without a high school diploma to much higher rates among those with more education. Noticeably, the participation rate in work-related courses was about 9 times higher for adults with a bachelor's degree or higher than for those with less than a high school diploma. However, those with less than a high school diploma participate *more* in ABE/GED and ESL classes than those with a high school diploma or higher. This result is consistent with the structure of the education system where ABE/GED and ESL programs typically enroll those with lower education levels. Participation in credential programs also reflects the structure of the education system in that those with less than a high school diploma participate at very low levels, participation is highest among those with some college, associate's degree, or vocational/technical diploma, and participation tapers off for those who have already attained a bachelor's degree.

Table 2 examines whether the same relationships between levels of participation and educational attainment emerge when participation in one type of educational activity only is contrasted with participation in multiple types of activities. Comparing those with less than a high school diploma to those with a high school diploma or more education shows this to generally be the case. However, if those with less than a high school diploma are excluded, the only positive relationships that emerge between educational attainment and participation rates are in work-related courses or in work-related courses combined with other

types of courses. Because work-related participation is such a large component of overall participation, it appears to be responsible for differences in overall participation and participation in multiple types of activities by educational attainment. Other studies suggest this relationship exists because employers tend to provide training for more educated employees (Vaughan 1989) and require more educated employees to participate in work-related education (Hudson forthcoming).

### Summary

About 90 million adults (46 percent of adults) were engaged in one or more types of adult education in the 12-month period prior to the NHES:1999 interview. This represents a significant increase in participation compared to the rates observed in the 1991 and 1995 NHES surveys. Adults were most likely to participate in work-related courses and personal development courses. Participation rates overall and for these two most frequent types of educational activities were positively associated with the adult's educational attainment. About 2 in 10 adults without a high school diploma participated in any educational activities, compared to more than 6 in 10 adults with a bachelor's degree or higher. However, the apparent direct relationship between participation in adult education and educational attainment, on closer examination, may result from a divide between those with less than a high school diploma and others, and by participation of more highly educated adults in work-related educational activities.

### Survey Methodology and Data Reliability

The 1999 National Household Education Survey (NHES:1999) was a telephone survey conducted for the National Center for Education Statistics (NCES) of the U.S. Department of Education. Data collection took place from January 3 through April 3 of 1999. The sample is nationally representative of all civilian, noninstitutionalized persons in the 50 states and

the District of Columbia. This sample was selected using random-digit-dialing (RDD) methods, and the data were collected using computer-assisted telephone interviewing (CATI) technology. This section provides a brief description of the study methodology; further details will appear in the *National Household Education Survey of 1999 Data File User's Manual, Volume 4, Adult Education Interview Data File* (Nolin et al. forthcoming) and a forthcoming NHES:1999 methodology report.

The Adult Education Interview of the NHES:1999 sampled civilian, noninstitutionalized adults who were age 16 and older and not enrolled in elementary or secondary school. A household screener was administered to an adult member of the household to collect the information about each household member required for sampling.

In the Adult Education Interview, information was collected about educational attainment, participation in six types of educational activities in the previous 12 months, and labor force participation. The respondent to the Adult Education Interview was the sampled adult him/herself; multiple attempts were made to complete interviews with persons not available at the time of selection. Interviews were conducted in both English and Spanish. This Brief is based on the 6,977 completed Adult Education Interviews.

This Brief focuses on educational attainment as related to participation in educational activities. Other potential uses of the data include detailed examination of participation in each of the six different types of adult education, the role of employers as providers and sponsors of educational activities, and the reasons that adults give for participating.

#### **Measuring Participation in Adult Education**

The measurement of adult education participation is dependent upon the specific

definition of adult education used for the analysis. Beyond this, the ways in which questions are asked may lead to observed differences in the responses.

#### **Classifying Types of Adult Education Activities**

The NHES:1999 used the same set of questions as used in the NHES:1995 in an effort to capture a wide range of adult education activities and to ensure comparability. In the Adult Education Interview, respondents were asked about the six types of educational activities in the following order: English as a Second Language classes, adult basic education and GED preparation classes, credential programs, apprenticeships, work-related courses, and personal development courses. Because respondents could not know the types of activities that would be addressed in later sections of the interview, they may have reported activities in the first section of the interview in which they appeared to fit (known as an order effect).<sup>6</sup> In this report, activities are classified according to the type under which they were reported. Alternatively, analysts could classify activities according to the main reason for which the adult participated in the activity (e.g., to earn a credential, to improve job skills, or for a personal interest or social reason), according to the type of instructional delivery (e.g., whether or not the instruction was through distance education), or according to the type of provider (e.g., college, vocational school, business, or church).

**Participation in Credential Programs.** The participation rate reported here excludes persons who participated in full-time postsecondary credential programs and in no other educational activities. Part-time credential seekers or those who participated in both full-time and part-time credential programs are included. The exclusion of full-time credential-seekers is consistent with previous presentations of data on adult education participation in NCES reports. Full-time credential-seekers may have also participated in *other* types of adult

education, and if so they are counted as participants in those types of adult education.

There are an estimated 32.3 million credential seekers (16.6 percent of all adults), as found in the NHES:1999. Of these, 14.0 million (7.2 percent of all adults) participated in a credential program on a full-time, but not part-time, basis and are not included in the credential rate. The adults who reported participating in a postsecondary credential program on a part-time basis (including both full-time and part-time bases) are included as participants, and there are an estimated 18.3 million of these adults (9.4 percent of all adults) nationally.

### **Data Reliability**

Estimates produced using data from the NHES:1999 are subject to two types of error, sampling and nonsampling errors. Nonsampling errors are errors made in the collection and processing of data. Sampling errors occur because the data are collected from a sample rather than a census of the population.

### **Nonsampling Errors**

Nonsampling error is the term used to describe variations in the estimates that may be caused by population coverage limitations and data collection, processing, and reporting procedures. The sources of nonsampling errors are typically problems like unit and item nonresponse, differences in respondents' interpretations of the meaning of the questions, response differences related to the particular time the survey was conducted, and mistakes in data preparation.

In general, it is difficult to identify and estimate either the amount of nonsampling error or the bias caused by this error. This is particularly problematic in random-digit-dial surveys because so little is known about the sampled telephone numbers with which contact has not been made.

An important source of nonsampling error for a telephone survey is the failure to include persons who do not live in households with telephones. About 95 percent of all adults age 16 and older live in households with telephones (Brick 1996). Weighting adjustments using characteristics related to telephone coverage were used to reduce the bias in the estimates associated with adults who do not live in households with telephones.

### **Response Rates**

In the NHES:1999, screeners were completed with 55,929 households, with a response rate of 74.1 percent. Of the 8,114 adults sampled for the Adult Education Interview, 84.1 percent (6,977) completed the interview. Thus, the overall response rate for the Adult Education Interview is 62.3 percent (the product of the screener response rate and the interview completion rate). This does not meet the NCES 70 percent standard for response rates, so analyses were conducted to determine if there was a nonresponse bias problem. Results indicate that nonresponse bias was not a problem in the NHES:1999.

For the Adult Education Interview, item nonresponse (the failure to complete some items in an otherwise completed interview) was very low for most items. The item nonresponse rates for most variables in this report are less than 1 percent. The single exception is an item that is used to determine part-time or full-time status of credential seekers. The item nonresponse rate was 5 percent. Items with missing data were imputed using a hot-deck procedure. The estimates in this report include the imputed data.

### **Sampling Errors**

The sample of telephone households selected for the NHES:1999 is just one of many possible samples that could have been selected. Therefore, estimates produced from the NHES:1999 sample may differ from estimates that would have been produced from other

samples. This type of variability is called sampling error because it arises from using a sample of households with telephones, rather than all households with telephones.

The standard error is a measure of the variability due to sampling when estimating a statistic; standard errors for estimates presented in this report were computed using a jackknife replication method. Standard errors can be used as a measure of the precision expected from a particular sample. The probability that a population parameter obtained from a complete census count would differ from the sample estimate by less than 1 standard error is about 68 percent. The chance that the difference would be less than 1.65 standard errors is about 90 percent; and that the difference would be less than 1.96 standard errors, about 95 percent.

Standard errors for all of the estimates are presented in the tables. These standard errors can be used to produce confidence intervals. For example, an estimated 46 percent of adults participated in adult education (not including full-time credential programs only), and this figure has an estimated standard error of 0.8. Therefore, the estimated 95 percent confidence interval for this statistic is approximately 44 to 48 percent ( $46 \pm 1.96 (0.8)$ ). That is, in 95 out of 100 samples from the same population, the estimated participation rate should fall between 44 and 48 percent.

### Statistical Tests

The tests of significance used in this analysis are based on Chi-squared tests for bivariate relationships and Student's *t* statistics for the comparison of individual estimates. The Rao-Scott Chi-squared test was used to take into account the complex sample design. As the number of comparisons at the same significance level increases, it becomes more likely that at least one of the estimated differences will be significant merely by chance, that is, it will be erroneously identified as different from zero. Even when there is no statistical difference

between the means or percentages being compared, there is a 5 percent chance of getting a significant *t* value of 1.96 from sampling error alone.

A Bonferroni adjustment was used to correct significance tests for the increased likelihood of finding significant differences when making multiple comparisons. This method adjusts the significance level for the total number of comparisons made with a particular classification variable. All the differences cited in this report are significant at the 0.05 level of significance after a Bonferroni adjustment.

Regression analyses were also conducted to study a number of linear relationships. Reported relationships based on regression estimates are significant at the 0.05 level of significance.

### Endnotes

<sup>1</sup> In the NHES:1991, an approach based on previous Current Population Survey (CPS) collections was used. Adults were asked about their full-time and part-time participation in nine educational activities presented in list form. This approach was modified as discussed in the text for the NHES:1995 and 1999.

<sup>2</sup> In the NHES:1999 survey administration, interviews were conducted in English and Spanish. As a result, the survey underrepresents participation in ESL among adults who do not speak English or Spanish.

<sup>3</sup> Persons who received their high school diplomas or equivalent during the 12 months prior to the interview and persons who received high school diplomas in a foreign country and did not have bachelor's degrees were also asked about their participation in ABE/GED activities in the previous 12 months.

<sup>4</sup> Most full-time postsecondary credential seekers are "traditional" college students who are 18 to 21 years old, although many are older

(U.S. Department of Education 1998). Full-time postsecondary credential-seeking is often regarded as traditional schooling rather than adult education. Some analysts, however, consider nontraditional credential seekers (e.g., adults over the traditional college age range) to be adult education participants.

<sup>5</sup> The difference between the sum of each type of adult education (60 percent) and the overall rate (46 percent) is 14 percent. As shown in table 2, 12 percent of adults participated in more than one type of activity. This apparent

discrepancy (14 percent vs. 12 percent) is due to the summation of rounded percentages across the six categories of adult education.

<sup>6</sup> If such an order effect exists in these data, the percentage of participation in the six types of adult education may change if the order in which the six types of adult education are presented to respondents changes. Neither the NHES:1995 nor the NHES:1999 included a test of order effects. Therefore, while such effects are quite possible, their presence and extent cannot be quantified.

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Table 1.—Percent of civilian, noninstitutionalized adults, 16 years of age or older, who participated in one or more types of adult education activities during the 12 months prior to the interview, by highest level of education attained: 1999

| Types of adult education                         | Adults <sup>1</sup> |                | Highest level of education attained               |      |                                       |       |                                                                   |       |                             |                 |
|--------------------------------------------------|---------------------|----------------|---------------------------------------------------|------|---------------------------------------|-------|-------------------------------------------------------------------|-------|-----------------------------|-----------------|
|                                                  |                     |                | Less than a high school diploma or its equivalent |      | High school diploma or its equivalent |       | Some college, associate's degree, or vocational/technical diploma |       | Bachelor's degree or higher |                 |
|                                                  | Estimate            | s.e.           | Estimate                                          | s.e. | Estimate                              | s.e.  | Estimate                                                          | s.e.  | Estimate                    | s.e.            |
| Estimated number of adults (in thousands).....   | 194,625             | 0 <sup>2</sup> | 32,644                                            | 211  | 53,488                                | 1,255 | 52,843                                                            | 1,402 | 55,651                      | 1,413           |
| <b>Types of activity (Percent participating)</b> |                     |                |                                                   |      |                                       |       |                                                                   |       |                             |                 |
| Any adult education activity <sup>3</sup> .....  | 46                  | 0.8            | 22                                                | 1.8  | 37                                    | 1.7   | 52                                                                | 1.4   | 62                          | 1.5             |
| Any ABE/GED <sup>4</sup> .....                   | 2                   | 0.2            | 9                                                 | 1.4  | 1                                     | 0.2   | <0.5                                                              | 0.1   | -- <sup>5</sup>             | -- <sup>5</sup> |
| Any ESL <sup>6</sup> .....                       | 1                   | 0.1            | 3                                                 | 0.6  | 1                                     | 0.2   | 1                                                                 | 0.2   | 1                           | 0.2             |
| Any credential program <sup>7</sup> .....        | 9                   | 0.4            | 2                                                 | 0.6  | 7                                     | 0.7   | 14                                                                | 0.9   | 12                          | 0.8             |
| Any apprenticeship program.....                  | 2                   | 0.3            | 1                                                 | 0.5  | 2                                     | 0.8   | 3                                                                 | 0.4   | 1                           | 0.2             |
| Any work-related course.....                     | 23                  | 0.7            | 4                                                 | 0.7  | 17                                    | 1.4   | 25                                                                | 1.3   | 38                          | 1.5             |
| Any personal development course.....             | 23                  | 0.7            | 8                                                 | 1.2  | 18                                    | 1.3   | 27                                                                | 1.3   | 32                          | 1.4             |

<sup>1</sup>Includes civilian, noninstitutionalized adults, age 16 or older, not enrolled in elementary or secondary school at the time of the interview.

<sup>2</sup> The standard error of the estimate of the total number of adults (194,625,207) is zero. This is due to the fact that the Adult Education Interview full-sample and replicate weights were each raked to the same set of control totals. Thus, the sum of the full-sample weights and the sum of each of the replicate weights are equal.

<sup>3</sup>Adults who participated in a postsecondary credential program on a full-time basis only, for part or all of the year, and did not participate in any other type of formal educational activity are not counted as participants in adult education. Adults who participated in a postsecondary credential program on a full-time basis only and also participated in another type of adult education are included in the overall rate and the rate for the type of non-credential adult education in which they participated, but not in the credential program rate.

<sup>4</sup>Adult Basic Education/General Education Development (ABE/GED). Respondents who did not have a high school diploma or its equivalent, received a high school diploma or its equivalent in the past 12 months, or received a high school diploma in a foreign country, but no bachelor's degree, were asked about participation in adult basic education, GED preparation classes, and adult high school equivalency programs.

<sup>5</sup>Persons with a bachelor's degree or more education were not asked about participation in adult basic education, GED preparation classes, adult high school, or high school equivalency programs.

<sup>6</sup>English as a Second Language (ESL). Respondents whose primary language is not English were asked about participation in English as a Second Language classes.

<sup>7</sup>Adults who participated in a credential program on a part-time basis only or on both part-time and full-time bases are included in the credential rate and the overall rate.

NOTE: s.e. is standard error. Percents for different types of adult education sum to more than the overall participation rate because some adults participate in more than one type of activity or program. Estimates that are more than 0, but do not round to 1, are shown as <0.5 (less than one-half). Estimates may not sum to total due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, 1999.

Table 2.—Percent of civilian, noninstitutionalized adults, 16 years of age or older, who participated in one type or multiple types of adult education activities during the 12 months prior to the interview, by highest level of education attained: 1999

| Types of adult education                                                     | Adults <sup>1</sup> |                | Highest level of education attained               |      |                                       |       |                                                                   |       |                             |                 |
|------------------------------------------------------------------------------|---------------------|----------------|---------------------------------------------------|------|---------------------------------------|-------|-------------------------------------------------------------------|-------|-----------------------------|-----------------|
|                                                                              |                     |                | Less than a high school diploma or its equivalent |      | High school diploma or its equivalent |       | Some college, associate's degree, or vocational/technical diploma |       | Bachelor's degree or higher |                 |
|                                                                              | Estimate            | s.e.           | Estimate                                          | s.e. | Estimate                              | s.e.  | Estimate                                                          | s.e.  | Estimate                    | s.e.            |
| Estimated number of adults (in thousands).....                               | 194,625             | 0 <sup>2</sup> | 32,644                                            | 211  | 53,488                                | 1,255 | 52,843                                                            | 1,402 | 55,651                      | 1,413           |
| <b>Only one type of activity</b><br>(Percent participating)                  | 34                  | 0.7            | 18                                                | 1.7  | 29                                    | 1.3   | 38                                                                | 1.2   | 43                          | 1.5             |
| ABE/GED <sup>3</sup> only .....                                              | 1                   | 0.2            | 6                                                 | 1.2  | <0.5                                  | 0.2   | <0.5                                                              | 0.1   | -- <sup>4</sup>             | -- <sup>4</sup> |
| ESL <sup>5</sup> only .....                                                  | 1                   | 0.1            | 2                                                 | 0.6  | <0.5                                  | 0.1   | <0.5                                                              | 0.1   | <0.5                        | 0.1             |
| Credential program <sup>6</sup> only .....                                   | 4                   | 0.3            | 1                                                 | 0.5  | 4                                     | 0.6   | 6                                                                 | 0.6   | 4                           | 0.5             |
| Apprenticeship program only .....                                            | 1                   | 0.1            | 1                                                 | 0.5  | 1                                     | 0.2   | 2                                                                 | 0.4   | <0.5                        | 0.1             |
| Work-related course only .....                                               | 13                  | 0.5            | 3                                                 | 0.6  | 10                                    | 1.0   | 14                                                                | 1.0   | 22                          | 1.2             |
| Personal development course only .....                                       | 13                  | 0.5            | 5                                                 | 1.0  | 13                                    | 1.0   | 15                                                                | 1.0   | 16                          | 1.1             |
| <b>Two or more types of activities</b>                                       | 12                  | 0.5            | 4                                                 | 0.9  | 8                                     | 1.0   | 14                                                                | 1.0   | 19                          | 1.3             |
| Credential program <sup>6</sup> & work-related .....                         | 2                   | 0.2            | 0 <sup>7</sup>                                    | --   | 1                                     | 0.2   | 3                                                                 | 0.4   | 3                           | 0.5             |
| Credential program <sup>6</sup> & personal development .....                 | 2                   | 0.2            | <0.5                                              | 0.2  | 1                                     | 0.3   | 3                                                                 | 0.5   | 2                           | 0.3             |
| Work-related & personal development .....                                    | 6                   | 0.3            | 1                                                 | 0.4  | 4                                     | 0.6   | 6                                                                 | 0.7   | 11                          | 0.9             |
| Credential program <sup>6</sup> , work-related, & personal development ..... | 1                   | 0.2            | 0 <sup>7</sup>                                    | --   | <0.5                                  | 0.2   | 1                                                                 | 0.4   | 2                           | 0.4             |
| Any other combination of adult education activities .....                    | 2                   | 0.3            | 3                                                 | 0.8  | 2                                     | 0.8   | 1                                                                 | 0.3   | 1                           | 0.2             |

<sup>1</sup>Includes civilian, noninstitutionalized adults, age 16 or older, not enrolled in elementary or secondary school at the time of the interview.

<sup>2</sup>The standard error of the estimate of the total number of adults (194,625,207) is zero. This is due to the fact that the Adult Education Interview full-sample and replicate weights were each raked to the same set of control totals. Thus, the sum of the full-sample weights and the sum of each of the replicate weights are equal.

<sup>3</sup>Adult Basic Education/General Education Development (ABE/GED). Respondents who did not have a high school diploma or its equivalent, received a high school diploma or its equivalent in the past 12 months, or received a high school diploma in a foreign country, but no bachelor's degree, were asked about participation in adult basic education, GED preparation classes, and adult high school equivalency programs.

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<sup>7</sup>This estimate is based on a sample; it is possible that persons with these characteristics exist in the population.

NOTE: s.e. is standard error. Estimates may not sum to total due to rounding. Estimates that are more than 0, but do not round to 1, are shown as <0.5 (less than one-half).

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, 1999.